Information Literacy 101

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Introduction:

From the course guide, you’ll see I am currently a Medical Librarian for UAA and have been for 10 years. But over my 35 years as a librarian I’ve worked in education, oil and gas, a national park, an archives and government library in New Zealand, Canada and Alaska.

Mineral resource development may seem a real stretch for me. However, my husband is a Chief Geologist and director for two companies he started with a partner a few years back. Petro One is exploring for oil on the Canadian prairies; Goldstrike Resources has staked thousands of claims in the Yukon. These are high risk ventures. Many juniors, even large, established companies are struggling for survival in a very jittery stock market. Investors want established production and fast financial gains, making it near impossible to raise capital to prove up and develop resources.

But quality information confers a critical edge. Regularly I use my information literacy skills to support their work. The principles are the same; I just use specialized databases, Georef and Geobase.

What is Information Literacy? Simply, the set of skills needed to find, retrieve, analyze, and use information.

Why is this important? Today, the accelerating speed of technological innovation has connected individuals to an endless barrage of information of all kinds, coming from multiple directions, at high speed. Author David Shenk, suggests that too much information can create a barrier in our lives, and has coined the term, Data Smog. People often need to make fast decisions, but Data Smog makes them feel anxious about making good decisions without having ALL the information that is available or that they need. Another critical question is, can they trust this information? How can they figure out what is trustworthy?

Information Literacy is the solution to Data Smog. Today we’ll do a lightning overview of the four skills essential to Information Literacy – Finding, Retrieving, Analyzing and Using information.

FIND/RETRIEVE:

The course guide lists selected information resources chosen for you by your instructors. Nevertheless, for assignments and to prepare for the modular debate you will want to find additional information.

The nature of your question will determine the most likely place to find the answer.
The Library vs the Invisible Web

- It's not all on the Web! Est. 1/500th is publicly accessible. Rest behind firewalls, on Intranets.
- High quality, scholarly publications very costly to produce → High subscription fees. Individuals could not afford access to the large collections of articles needed for quality research. You can get full-text articles from the library website 24/7 using your university computer ID and pw.
- Your student tech fees pay for library resources. Library resources are vetted, carefully selected information (c.f. Web, where you must evaluate the quality yourself, full-text hard to find).
- Library databases and online catalog results do not depend on revenue from advertisers; they are never influenced by Search Engine Optimization techniques and third party manipulation. See Trust, Credibility and Search Engines article under Evaluation information tab.

http://consortiumlibrary.org

1. The Library Catalog – Southcentral libraries, limit to CL. (or use QuickSearch)
2. WorldCat – library catalogs around the world – request ILL from within an item record.
3. QuickSearch – Federated. Discovery tool (80% library collection; books, e-books, and the full-text of articles)
   
   Example: pebble project salmon
   different words will give different results. Try pebble mine salmon. Enclosing phrases in double quotes will keep phrases together when searching! [Limit to scholarly articles, date range, subjects]

   Mouse over the magnifying glass to read abstracts; click the + icon to save temporarily.
   
   Click the Saved Items link at the bottom of the screen to get option to format in APA or others, and export to your RefWorks account.

4. Research Guides (also called LibGuides) – Find these under Subjects, or Research Help box on Consortium Library website. e.g. Environmental Studies, Geology, Business
   
   Use search box to find research guides on less major topic areas. Note we have Course guides (HNRS 391…) and How-To Guides (Copyright, RefWorks, QuickSearch) here also.

5. Library Databases
   
   Think about your question, keywords, synonyms, and broader terms in case you need them. 
   
   Boolean operators AND, OR, NOT, phrase, wildcard searching can all help when searching, especially in library databases. http://www.internettutorials.net/boolean.asp
   
   (see also How to Search box under Consortium Library in HNRS 391 course guide)

Try this search in Environmental Sciences & Pollution Mgmt database: acid mine drainage AND salmon*
Google Scholar: Use on library website, to get links to full-text provided by library.
Click Databases, enter Google Scholar in the search box, and enter your BB userid and pw.
Set up Google Scholar preferences to export to RefWorks. (May be found under cogwheel!)
Try this search in Google Scholar Advanced Search (drop down menu at right end of search box).
(in all of the words) Wetlands disposal
(at least one of these terms) mine mining mines  Add date range and hit search button
Follow Check Library for Full Text links in database search results to view complete articles
wherever they reside in the library.

6. Interlibrary Loan – Get books or articles the library does not have. [Easy to use, fast and free!] If journal article you want is only in Print collection, you can also request it on ILL. Set up your Interlibrary Loan account BEFORE you need it (see link on library homepage). Then, when you find no holdings when you click the Check Library for Full Text link in a database, you can Request an Interlibrary Loan, log in and the system will fill in the form for you – Super easy!!!

7. Export citations and save PDFs in RefWorks. (see box on Consortium Library tab). Set up your RefWorks account on the library homepage under RefWorks (no charge). Find links to tutorials on that page too.

8. Ask me for help on any information related topic. I am your library liaison for this course. See course guide or Blackboard for contacts, or email me at sally@uua.alaska.edu

THE WEB (in essence a vast database)

Best for:

- News
- Information about companies
- Information about all levels of government
- Expert and popular opinions
- Information about hobbies, personal interests, shopping, entertainment

Anyone can put up information on the web – you must evaluate it carefully before using it!

4 Techniques to improve searching

1. THINK FIRST before entering search terms.
2. Be specific; use unique terms to zero in on relevant material. “open pit” rather than mine. Use double quotes to keep phrases together. AND OR NOT can usually be used. Watch syntax, Loo for Help links.

3. Use pearl-gathering technique. When you find a relevant citation, identify additional terms or more specific terms to use in your search, e.g. ACID MINE DRAINAGE, Names of experts. Use word stems to search all possible versions of a word. Salmon will retrieve salmon, salmonid or salmonidae. NB. Short stems may retrieve irrelevant or too many citations!

4. Note down resources and search strings as you use them, i.e. keep track of ground covered!

5. Use more than one search engine; no one is comprehensive.

Search Engines:
Select based on your need.
http://www.noodletools.com/debbie/literacies/information/5locate/adviceengine.html

Recommended Search Engines (UC Berkeley) compares Google, Yahoo and Exalead, and provides a guide to what syntax to use when searching.
http://www.lib.berkeley.edu/TeachingLib/Guides/Internet//SearchEngines.html

Analyze:
Evaluate information you found for quality and usefulness.

Particularly important if you found it on the Web (anyone can post information here; there is no prior vetting or editing process.)

KEY CRITERA:

1. Source: Who is responsible for this content? Check for author, institution, clues from URL

2. Authority: Is the author qualified? Respected organization? Does the URL include tilde ~? Check elsewhere for information about the people/organization. Is the author published in this field?

DON’T use this information if you cannot establish the authority/credibility of the source.


4. Objectivity: Obvious bias? Particular point of view? Both sides of controversy or just one? Is it an infomercial? Source URL. Check other sources about them, to learn about possible biases.

5. Currency: When was the information updated. Signs of updating? Time and events can change things fast. New information is being generated constantly. Date of publication matters a lot!
6. **Completeness:** How thorough is the study? Part of larger work? Executive summary? Is there a link to full document or supporting data?

7. **Relevant to your information need?** Does this information really answer your question? Or is it on same topic, but not specific to your question?

**TRUSTWORTHY?** Read *Obtaining Trustworthy Information* and understand biases that will be in play!

- The Pebble Project is very controversial; many interests and emotions run high!
- Trustworthy information is essential to resolve the conflict. Has huge strategic value.
- Parties will want to champion their own viewpoint, downplay or discredit others. They employ sympathetic experts, and focus on facts that support their arguments – adversarial science. Motivations may be economic, peer recognition, public attention, strategic advantage over a competitor or even revenge!
- Data collection methods may be unscientific. Data can be skewed one way or another by interpretation.
- Shared or neutral fact finding may be needed to find facts of mutual agreement as a 1st step. Once the parties can be receptive to the facts, and can rationally examine the arguments and evidence for claims put forward, they can start to move towards agreement or disagreement and ultimately conflict resolution.

**Use:**

Permissions, Attribution. Copying others’ ideas or words without proper attribution is plagiarism and against both universities’ student conduct codes. Be able to quote the source of your information, vocally or in writing. If you need a refresher on this, go to [http://www.consortiumlibrary.org/blogs/ahi/](http://www.consortiumlibrary.org/blogs/ahi/) and read up about it or take the AI Tutorial.